

## **ABSTRACT**

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**WORKING MECHANISM OF THE HEAP LEACHING TOOL WITH RECYCLE FLOW SYSTEM**

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(xiii + 21 + Attachment)

Heap leaching is a traditional mining method that has existed since ancient times to extract valuable metals from certain materials. In essence, heap leaching is a hydrometallurgical process in which a solution is used to dissolve minerals from metal extraction, thereby allowing the extraction of the metal. The heap leaching process itself is carried out by sealing what will be extracted, then squeezing the ore and spraying it using a solvent, such as sulfuric acid or cyanide, which will then dissolve the valuable mineral content that you want to separate from the sealing. By creating this tool, it is hoped that it can enrich the references for researchers or students who focus on the field of heap leaching. This research aims to determine the working mechanism of the heap leaching tool for the recycle flow system. This tool is different from conventional heap leaching tools, where this tool flows back the solvent acid to be used again in the leaching process. This flow system is expected to increase effectiveness and save costs on the heap leaching process itself.